A PROFILE OF THE SOUTH AFRICAN SWEET POTATO MARKET VALUE CHAIN



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1. DESCRIPTION OF THE INDUSTRY

Sweet potato is native to tropical America and is commonly called a yam in parts of the United States. Sweet potato is a crop plant whose large, starchy sweet-tasting tuberous roots are an important root vegetable. The edible tuberous root is long and tapered, with a smooth skin whose colour ranges from white through yellow, orange and purple. Although the leaves are also edible, the starchy tuberous roots are by far the most important product. In some tropical areas, they are a staple food crop. The roots are mostly frequently boiled, fried or baked. Besides simple starches, sweet potatoes are rich in complex carbohydrates, dietary fibre, beta carotene and Vitamin C. Industrial uses include the production of starch and industrial alcohol. Sweet potato can also be processed to make starch and a partial flour substitute. The sweet potato is only distantly related to the potato and does not belong to the nightshade family. Sweet potato is the world's seventh most significant food crop, owing to its adaptability and versatility. However, the global output share is limited since most countries grow sweet potatoes for domestic consumption.



Source: Statistics and Economic Analysis, DALRRD

Figure 1 above illustrates the contribution of the sweet potato industry to the gross value of agricultural production over 10 years. In 2012, sweet potato gross value has dropped by 7.2% due to a drop in production output and unfavourable producer prices that occurred in the same year. During 2013, potato gross value dropped by 5.9% and this can be attributed to a 20.5% increase in production output. Sweet potato gross value has gone up by 7% during 2014 in comparison to the previous year's value and this can be ascribed to the 26% increment in producer price. In 2015, the sweet potato gross value grew by 3.9% when compared to the 2014 value and this can be attributed 5% increment in production output. In 2016, sweet potato gross value eased higher by 31.5%, which can be ascribed to an increase in sweet potato prices during the same season. Sweet potato gross value declined marginally by 2.5% in 2017, when compared to 2016 gross value and this can be

ascribed to a 19% drop in producer prices during the same season. As of 2018, sweet potato gross value grew slightly by 3% relative to 2017 gross value and this can be attested to a 16.5% increment in the domestic production output. In 2019, South Africa's sweet potato gross value increased by 7.2%, which can be attributed to the higher production output that occurred during the same year. The gross value of sweet potatoes in South Africa increased by 28.9% in 2020 when compared to the 2019 gross value.

1.1 Production Areas

Sweet potatoes are cultivated throughout tropical and warm temperature regions wherever there is sufficient water to support their growth. The sweet potato plant does not enjoy frost. Depending on the cultivar and conditions, tuberous roots mature in two to nine months. The main producing regions are Northern Cape, Western Cape, Limpopo, Free State, Eastern Cape and Gauteng. Globally, the Asia region is the largest grower of sweet potatoes; providing about 80% of the world supply. China is still the largest sweet potato producer, followed by Malawi, Tanzania, Nigeria, Indonesia, and Ethiopia, Half of Asia's crop is used for feeding animals and the remainder is primarily used for human consumption. According to FAOSTAT 2019, Nigeria, Tanzania, Ethiopia and Uganda are still amongst the top ten sweet potato producers in the world.

1.2 Production Trends



Figure 2 below illustrates the sweet potato production volumes from 2011 to 2020

Source: Statistics and Economic Analysis, DALRRD

In 2011, South Africa sweet potato production was just above 55 770 tons. In 2012, production output eased lower by 0.9%, in comparison to the previous year output. Sweet potato production output increased notably by 20.5% during 2013 and the volume was at a record high for 10 years. There was a 26.6% drop in production output during 2014 in comparison to the 2013 output. In 2015, sweet potato production output eased higher by 5% when compared to 2014 production output. There was a 5.9% decline in sweet potato production output during 2016 when compared to 2015 sweet potato production output. In 2018, production output grew by 20% relative to the previous year (2016) production output. As of 2018, South Africa's sweet potato production output grew by 2.7% during 2019 when compared to the previous year (2018) production output. In 2020, the production of sweet potatoes in South Africa decreased by 6.3% compared to the previous year's (2019) output.

1.3 Production vs. Consumption of sweet potato

Figure 3 below depicts the local consumption of sweet potatoes compared to the production over 10 years. South African average sweet potato consumption is approximately 61 644 tons per annum. In 2020, consumption volume decreased by 9.3%, which can be ascribed to a 6.3% decrease in production output in the same year. The figure below illustrates that the production of sweet potatoes is higher than the consumption. This indicates that South Africa is self-sufficient in terms of sweet potato production and the surplus sweet potatoes are also exported. Papua New Guinea, followed by the Salomon Islands and Burundi has the world's highest per capita consumption of sweet potatoes.



Source: Statistics and Economic Analysis, DALRRD

2. MARKET STRUCTURE

There is no regulation or restriction on the marketing of sweet potatoes. The prices of sweet potatoes are determined by the market forces of demand and supply. The industry uses fresh produce market, informal market, processors and direct selling to wholesalers and retailers. Sweet potatoes are also exported to other countries through export agents and marketing companies. South Africa also imports sweet potatoes from other countries.

2.1 Domestic market and prices

Table 1 depicts quantities of sweet potatoes sold through the various marketing channels over the past ten years.

	National fresh produce market		
Years	(Tons)	Exports (Tons)	Total Processing
2011	22 237	6 244	1 115
2012	22 733	1 192	1 627
2013	34 240	1 979	1 365
2014	25 770	2 477	1 219
2015	28 967	3 110	1 627
2016	26 928	2 766	1 326
2017	32 302	3 041	3 723
2018	31 802	1 534	17 449
2019	34 321	5 262	14 625
2020	28 913	7 529	13 190

Table 1: Sweet Potato sold through different marketing channels

Source: Statistics and Economic Analysis, DALRRD

Table 1 above illustrates that National Fresh Produce Markets (NFPMs) remain an important channel for the sale of fresh sweet potatoes in South Africa. In 2020, 35% of all sweet potatoes were still distributed through fresh produce markets. There was a notable decline in the percentage of volume sold through NFPMs, in comparison to 2019 and this can be ascribed to a notable decline in sweet potatoes production output. The remaining 65% represents a direct sale from producer to wholesalers, retailers, processors, exports and informal traders. In 2020, processed sweet potato volume declined by 9.8% when compared to 2019 processed volumes. In the same year, sweet potato export volume notably increased by 43%, in comparison to the 2019 export volume.

Figure 4 below illustrates the sales of sweet potatoes in the national fresh produce markets for 10 years. During 2012, market price increased by 19.8% despite a 2.2% increase in sweet potato volumes supplied across the market and this can be attributed to the strong uptake of sweet potatoes

in the same year. In 2013, sweet potato volumes supplied across the market increased by 50.6%, which resulted in a 23% drop in market price. There was a 26.6% drop in volume supplied across the markets during 2014, and this resulted in a positive impact of a 37.9% increment in market price. During 2015, there was a 15.4% increase in volume supplied at the markets, which resulted in a 4.5% decrease in the market price. Sweet potato prices rose sharply by 31% in comparison to the previous year (2015) sweet potato price and this can be attributed to a 7% decrease in volume supplied at the markets. In 2017, the sweet potato market price dropped by 19% relative to the 2016 market price and this can be attested to a 20% increment in sweet potato volume supplied at the fresh produce market. As of 2018, there was a 0.4% decline in sweet potato market price despite a 1.5% decrement in volume supplied at the market and this can be ascribed to poor uptake of sweet potato prices. In 2019, sweet potatoes supplied at the fresh produce market price eased lower by 11.8% relative to the 2018 price. Sweet potato supplies in the fresh produce market dropped by 15.7% in 2020, leading to a 37.4% increase in market price compared to the price in 2019.



Source: Statistics and Economic Analysis, DALRRD

2.2 Sweet potato exports from South Africa

South Africa is not a major sweet potato exporter. In 2020, it represented 0.8% of world exports and it was ranked number 15 in the world. South Africa's world ranking has gained more competitiveness as during 2019 it was ranked number 20. This can be attributed to a notable 43% increment in volume exported. Most of the sweet potatoes produced were destined for domestic markets. By 2020, South African sweet potato exports were destined for the Netherlands, United Kingdom, Namibia, Botswana, Belgium and the United Arab Emirates. Globally, the United States of America, Netherlands, Viet Nam, Spain, Egypt, Canada, Japan and China were major sweet potato exporters in 2020. Egypt has gained competitiveness in terms of world sweet potato export quantity and it has

realized a negative annual growth of 5% in value between 2019 and 2020. Figure 5 below illustrates South African sweet potato export destinations.



Source: ITC Trade Map

Table 2 below indicates that, during 2020, South Africa exported higher quantities of sweet potatoes to the Netherlands, United Kingdom, Namibia, Botswana, Belgium and the United Arab Emirates. South Africa has exported 47.9% of sweet potato export to the Netherlands and the United Kingdom has recorded 31.1%, Namibia has commanded a 6.3% share, and export to this country has increased by 10% in terms of value and 17% in quantity between 2016 and 2020 period. In the same year, Botswana commanded a 5.2% share of South Africa's sweet potato exports. South African sweet potato exports to Botswana and Namibia have increased by 14% and 6% in terms of value respectively between the 2019 and 2020 period. South Africa's sweet potato exports to the Netherlands have gone up by 30% in value and 29% in quantity between 2016 and 2020 period.

Importers	Value exported in 2020 (USD thousand)	Trade balance 2020 (USD thousand)	Share in South Africa's exports (%)	The quantity exported in 2020 (tons)	Growth in exported value between 2016-2020 (%, p.a.)	Growth in exported quantity between 2016-2020 (%, p.a.)	Growth in exported value between 2019-2020 (%, p.a.)
World	5706	5614	100	7512	30	29	45
Netherlands	2733	2733	47.9	2778	22	17	102
United Kingdom	1775	1775	31.1	3059	75	77	19
Namibia	361	361	6.3	619	10	17	14

Table 2: South African sweet potato exports in 2020

Importers	Value exported in 2020 (USD thousand)	Trade balance 2020 (USD thousand)	Share in South Africa's exports (%)	The quantity exported in 2020 (tons)	Growth in exported value between 2016-2020 (%, p.a.)	Growth in exported quantity between 2016-2020 (%, p.a.)	Growth in exported value between 2019-2020 (%, p.a.)
Botswana	298	298	5.2	456	16	12	6
Belgium	252	193	4.4	244			
United Arab Emirates	112	112	2	118	40	39	-3
Lesotho	31	31	0.5	38	14	10	1
Eswatini	30	30	0.5	42	7	19	14
Mozambique	29	28	0.5	49	8	10	8
Spain	25	21	0.4	28	-20	-30	
Saudi Arabia	22	22	0.4	24			
Malawi	13	-10	0.2	15	14	11	35
Zambia	9	9	0.2	17	-14	-10	-49
Bahrain	7	7	0.1	13			
Zimbabwe	3	0	0.1	5	-23	-28	

Source: ITC Trade Map

Figure 6 below, illustrates South Africa's sweet potato exports over the past 10 years. During 2011, South Africa's sweet potato export volume was 6 244 tons. During 2012, sweet potato exports dropped significantly by 65% and this can be attributed to a slight decline in production output in the same year. In 2013, sweet potato export dropped further by 9.7%, in comparison to the 2012 export. There was a 25% increment in sweet potato export in 2014 despite a 26.6% decline in domestic production output. South Africa's sweet potato export has gone up by 26% in comparison to the 2014 export volumes and this can be attributed to a 5% increase in the domestic production output. Generally, it was more profitable to export sweet potatoes in 2008, 2011 to 2015, since high export values were recorded for volumes exported. During 2016, South Africa's sweet potato exports eased lower by 11% in comparison to the previous year (2015) and this can be ascribed to a 5.9% decline in domestic production output. In the same year, it was relatively more profitable to export sweet potatoes compared to the other years. In 2017, there was a 10% increase in sweet potato export volume relative to 2016 export volume and this can be attributed to a 20% increment in domestic production output. During the same season, it was more profitable to export sweet potatoes in comparison to the 2016 export value. As of 2018, South Africa sweet potato export drastically dropped by 49% relative to the previous year (2017), despite a 16.5% increment in domestic production output. In 2019, South Africa sweet potato exports surged by 242% relative to the 2018 export volume and this can be ascribed to a 7.2% increase in the domestic production output. It was also more profitable to export sweet potatoes when compared to the 2018 export value. The volume of sweet potatoes exported from South Africa increased by 43% in 2020, compared to the volume exported in 2019, despite a 6.3% decrease in sweet potatoes produced domestically. At the same time, it was also more profitable to export sweet potatoes, when compared to the value of sweet potato exports in 2020.



Source: Quantec Easydata

* Quantec easy data has revised export data to include export to SACU countries from 2010.

Figure 7 below indicates that South Africa sweet potato exports in ten years. During 2012, Europe continued to be the biggest market for sweet potato exports from South Africa. In the same year, considerable volumes were also exported to Oceania and Africa regions. Europe region followed by Africa region continued to be the primary export markets for South Africa's sweet potato exports during 2013. Notable volume was also exported to Asia region during the same year. In 2014, Europe was still the preferred export market for South African sweet potato exports. During the same time, there was a sharp increment in exports to Africa (Namibia, Angola, Botswana and Zimbabwe) and Asia (Malaysia and United Arab Emirates). During 2015, the European region (Netherlands and United Kingdom) has continued to be the primary export market for sweet potato export, followed by African region (Namibia, Botswana and Angola). In the same year, sweet potato export to Asia sharply dropped, while the unallocated exports considerably increased. In 2016, Europe (Netherlands and United Kingdom) and Africa (Namibia and Botswana) regions were still the main recipients of sweet potatoes exported from South Africa. At the same time, a considerable export volume of sweet potato was destined for Asia region. During 2017, Europe (Netherlands, United Kingdom and Portugal) has remained the primary export market for sweet potatoes exported from South Africa, followed by the Africa region and Asia. In the same period, there was a notable increase in sweet potato destined for the American region and the unallocated export experienced a notable increment. As of 2018, Africa region, followed by the European region was the preferred market for South Africa's sweet potato exports from South Africa. At the same time, there was a notable decline in export volume destined for Asia, America and unallocated exports. In 2019, the Europe region was the primary market for sweet potato exports originating from South Africa. followed by Africa region and there was a surge in exports destined to Asia region. The European region remained South Africa's largest market for sweet potato exports in the year 2020, followed by the region of Africa. On the other hand, exports headed for the Asia region decreased by 5.3% over the same time.



Source: Quantec Easydata

Figure 8 is an illustration of the value of South Africa's sweet potato export to the regions.



Source: Quantec Easydata

Figure 8 above indicates that the exports to Europe mostly have a higher value than exports to other regions. The value to Asia, Africa and the unallocated exports were insignificant due to the low volume exported to those regions. During 2011, it was more profitable to export sweet potatoes to Oceania followed by Europe. In 2012, it was more profitable to export to Oceania and Asia, while European markets were the less profitable market during the same year. During 2013, it was more profitable to export sweet potato to Asia and Europe was the least profitable export market. Asia export market was still more profitable in 2014, then followed by African market and Europe region remained the least profitable market. During 2015, it was by far more profitable to export sweet potatoes to Asia, followed by the Africa region and the European region was less profitable. In 2016, it was more profitable to export sweet potato to Africa, followed by Europe and Asia market was the least profitable. In 2017, the American region was still the most profitable export market, followed by Europe and Africa and Asia region was the least profitable market for sweet potatoes from South Africa. As of 2018, American region was still by far the most profitable market for South Africa's sweet potato export, followed by Asia, Europe and Africa, whilst export destined to Oceania was the least profitable. South Africa's sweet potato exports to Europe had the highest export value in 2019, followed by exports to Asia, and exports to Africa had the lowest export value. The export market in Asia was the most profitable in the year 2020, followed by Europe and Africa region.



Figure 9 illustrates South Africa's sweet potato exports to European Countries for ten years.

Source: Quantec Easydata

As of 2011 and 2012, the Netherlands, France, United Kingdom and Belgium were the primary export markets for sweet potato exports from South Africa. During 2013, South Africa exported sweet potatoes to France, United Kingdom and the Netherlands. In 2014, South Africa's exports to Europe region were destined for the Netherlands, United Kingdom and France. In 2015, South African sweet

potato exports destined to Netherlands and United Kingdom have notably increased while export to France has substantially dropped. In 2016, Sweet potato exports destined to the Netherlands, Spain and Portugal have sharply increased whilst sweet potato exports to the United Kingdom eased lower by 49% in comparison to 2015 exports. As of 2017, there was a notable increase in sweet potato export volumes destined to the Netherlands, United Kingdom and Portugal relative to 2016 export volumes. During 2018, the Netherlands was still the primary market for South Africa's sweet potato export, however, the export volume declined by 64%. In the same year, there was a notable increase in sweet potato export destined for France, whilst exports destined for the United Kingdom and Portugal have dropped by 72% and 27% respectively. In 2019, there was a surge in exports destined to the Netherlands, United Kingdom and Portugal, whilst the exports destined to France declined by a notable 58% relative to 2018 exports. In the year 2020, there was a significant increase in the number of exports that were destined to the Netherlands, the United Kingdom, Belgium, and Spain, but there were no exports that were destined to France.



Source: Quantec Easydata

Figure 10 above illustrates the sweet potato exports by provinces for the past ten years. The highlights for sweet potato exports were those of the Western Cape, Gauteng and Limpopo. KwaZulu Natal has contributed to a lesser extent. During 2012, export by Gauteng and Limpopo dropped significantly while the export of Western Cape province considerably increased. In 2013, North West has contributed for the first time to South Africa's sweet potato export. In the same year, Western Cape has notably increased its export value, while Gauteng and Limpopo export values have dropped. KwaZulu Natal export value was insignificant. In 2014, South African sweet potatoes were

exported mainly from Western Cape, Limpopo and Gauteng. Exports from Free State, KwaZulu Natal and Mpumalanga were less significant. Sweet potato export values for Western Cape, Limpopo and Gauteng provinces have substantially increased during 2015. Western Cape and Limpopo provinces continued to be the primary exit points for South Africa's sweet potato exports in 2016. In the same year, there was a notable decline in sweet potatoes sourced from Free State, KwaZulu Natal, North West whereas Mpumalanga export value has recorded a notable increase. During 2017, Western Cape has continued to lead in sweet potato export and the export value has increased by 17.4% relative to the 2016 export value. At the same time, KwaZulu Natal and Gauteng's export value has drastically increased, whilst Limpopo, North West and Free State export values have substantially dropped. As of 2018, Western Cape was still the primary exit point for South Africa's sweet potato export however, the export value drastically dropped by 49% relative to the 2017 export value. Gauteng export has dropped slightly by 1.8%, Mpumalanga export value was incomparably higher than 2017 export value and Limpopo export value drastically dropped by 99%. During 2019, there was a surge in Western Cape, Limpopo, Gauteng, KwaZulu Natal, Free State and North West sweet potato export values when compared to 2018 export values. In the same year, there was a sharp decline in export value recorded for Mpumalanga province. In 2020, Western Cape, Mpumalanga, Northern Cape and North West export values for sweet potatoes increased in comparison to 2019 export values. KwaZulu-Natal and Limpopo provinces both experienced a significant drop in export value during the same year. The following figures (Figure 11-14) show the value of sweet potato exports from the various districts and provinces of South Africa.



Source: Quantec Easydata

Figure 11 above indicates that sweet potato exports from Western Cape province were mainly from Cape Winelands and City of Cape Town. Cape Town harbour renders an export exit point for exports from these municipalities. During 2012, export values for the City of Cape Town have doubled, Cape

Winelands and Eden has increased significantly when compared to 2011 export values recorded for these districts. In 2013, City of Cape Town export value has sharply increased, Cape Winelands and Eden have also increased their export values. During 2014, Western Cape sweet potatoes were exported mainly from Cape Winelands and City of Cape Town. Overberg and Eden export values were less significant. In 2015, Cape Winelands, City of Cape Town, West Coast and Eden export values has experienced a significant increment when compared to 2014 export values. During 2016, Winelands continued to lead in sweet potato exports from Western Cape and the export value has surged in comparison to 2015 export value. At the same time, City of Cape Town export value eased higher by 39.7% and Eden export value surged by 82%, whilst West Coast export dropped drastically to a trivial value. In 2017, Cape Winelands was by far the primary exit point for sweet potato exports from Western Cape, followed by the City of Cape Town, whereas Eden has registered a trivial export value. As of 2018, Cape Winelands was still the primary exit point for Western Cape sweet potato export however, the export value has sharply dropped by 63%. City of Cape Town export value has increased by 4.8% and the West Coast district has significantly contributed to Western Cape sweet potato export. The City of Cape Town, Cape Winelands, West Coast, and Overberg have all contributed significantly to Western Cape sweet potato exports in 2019. The overall growth in Western Cape sweet potato export value can be ascribed to a 10% increase in the value of exports destined to neighbouring Namibia. In 2020, Cape Winelands was the primary exit point for Western Cape sweet potato export and the export value grew notably by 36%, Overberg export value increased by 22% whilst City of Cape export value dropped sharply by 60% relative to 2019 exports.



Source: Quantec Easydata

As can be seen from figure 12 above, sweet potato exports from Gauteng province were mainly from the City of Johannesburg and Ekurhuleni district municipalities. City of Johannesburg was the primary exit point for Gauteng sweet potato export. The highest export was recorded in 2011 and the exports were exported through the Ekurhuleni municipality in 2012, export value for this municipality

has dropped by 93%. In the same year, the City of Johannesburg and City of Tshwane export values have increased when compared to the previous year. During 2013, City of Johannesburg, Ekurhuleni and West Rand export values have notably dropped and in the same year, City of Tshwane has increased its export value, in comparison to the previous year. OR Tambo international airport serves as an export exit point for export originating from Gauteng province. In 2014, Gauteng sweet potatoes were exported through West Rand, Ekurhuleni, City of Johannesburg and City of Tshwane. During 2015, Gauteng provincial sweet potato export has substantially increased, while West Rand and the City of Tshwane export values have sharply dropped. City of Johannesburg was still the primary exit point of sweet potato export from Gauteng province during 2016, Ekurhuleni and City of Tshwane export values have notably increased, whereas West Rand export values experienced decrements. In 2017, the City of Johannesburg has remained the main exit point of Gauteng sweet potato export, followed by Ekurhuleni and City of Tshwane, whereas West Rand has registered less significant export value. As of 2018, Ekurhuleni export value increased by 17%, City of Johannesburg export value declined by 8.8% and City of Tshwane export value dropped by 2.6% relative to 2017 export values. In 2019, City of Johannesburg was the primary exit point for sweet potato exported through Gauteng province and the export value grew by 44%. At the same time, Ekurhuleni's export value has declined by 9.9% and City of Tshwane export value declined by 4.7% relative to the 2018 export value. In 2020, the City of Johannesburg served as the main exit point for sweet potato exports from the province of Gauteng, and the export value increased by 5.9%. Simultaneously, the export value of Ekurhuleni has risen by 31% and the export value of the City of Tshwane surged by 67.8% compared to the 2019 export value.



Source: Quantec Easydata

Figure 13 above indicates that sweet potato exports by KwaZulu-Natal province were mainly from Ethekwini. In 2011, KwaZulu Natal sweet potato export was solely through Ethekwini district municipality however, the export value for 2011 and 2012 was insignificant. In 2013, KwaZulu Natal sweet potatoes were exported solely from the Umgungundlovu district. As of 2013, KwaZulu Natal

sweet potato export value was recorded only for Ugu district. During 2014, KwaZulu Natal sweet potato exports were sourced from ILembe district. In 2015, KwaZulu Natal has exported sweet potatoes solely through Ethekwini district however, the export value was less significant. During 2016, Ethekwini was still the exit point for the sweet potato export from KwaZulu Natal export; however, the export value eased slightly lower by 9.9% in comparison to the 2015 export value. In 2017, there was a surge in sweet potato export recorded for Ethekwini relative to the 2016 export value. As of 2018, Ethekwini was the sole exit point for KwaZulu Natal sweet potato exports however, the export value declined by 18% relative to the 2017 export value. In 2019, Ethekwini was still a primary exit for KwaZulu Natal sweet potato exports and the export value grew notably by 43.9%. As of 2020, Ethekwini sweet potato export value was incomparably lower relative to the 2019 export value and Zululand has recorded a less significant export value.



Figure 14 is an illustration of the value of Limpopo provincial sweet potato exports.

Source: Quantec Easydata

Figure 14 above illustrates that sweet potato exports from Limpopo province were mainly from the Greater Sekhukhune district. As of 2011, Greater Sekhukhune and Waterberg districts were the primary exit point for Gauteng provincial sweet potato exports. In 2012, Greater Sekhukhune continued to lead in sweet potato exports while the export value for Waterberg dropped when compared to the 2011 export value. During 2013, Limpopo province exported sweet potato from the Greater Sekhukhune district and the export value has increased by 11.6% when compared to the 2012 export value. In 2014, the Greater Sekhukhune district continued to be the main contributor to Limpopo provincial sweet potato exports. At the same time, Capricorn has recorded its first export value however, the value was trivial. During 2015, Greater Sekhukhune, Waterberg and Capricorn export values have experienced a notable increment. In the same year, Mopani contributed for the first time to Limpopo sweet potato exports. In 2016, Greater Sekhukhune was still the main contributor to Limpopo sweet potato exports. In 2016, Greater Sekhukhune was still the main contributor to Limpopo sweet potato exports.

Capricorn, Waterberg and Mopani export values have also dropped. During 2017, Greater Sekhukhune export value dropped by 19.5% relative to the 2016 export value, Waterberg export value grew by 24% whilst Capricorn has notably dropped by 55% relative to the 2016 export value. As of 2018, the overall Limpopo sweet potato exports have drastically dropped, Vhembe district export value has increased but the value was less significant. In 2019, Waterberg and Greater Sekhukhune sweet potato export values were incomparably higher when compared to 2018 export values. As of 2020, Vhembe was the primary exit point for Limpopo sweet potato export and Waterberg has registered trivial export value.

2.3 Share Analysis

Table 3 below is an illustration of the provincial share of national exports. The high export shares in the Western Cape and Gauteng can be attributed to registered exporters and export exit points based in these provinces. As of 2011, Gauteng commanded an 87.90% share; Limpopo commanded 8.52%, while Western Cape export share has dropped to 3.58% share of sweet potato exports from South Africa. During 2012, Gauteng sweet potato export share dropped significantly, while Limpopo and Western Cape export shares have gone fairly higher during the same year. During 2013, Western Cape export share increased to 39.40% and Limpopo export share increased to 27.04%. In the same year, Gauteng province export share dropped from 59.55% to 43.67%. During 2014, Western Cape recorded a notable 48.11% share, Limpopo commanded a 29.60% share, whereas Gauteng export share further declined to 25.09%. Western Cape export share has increased to 50.65% during 2015, while Gauteng and Limpopo export shares have slightly decreased. Free State, KwaZulu Natal, North West and Mpumalanga export shares were trivial. In 2016, Western Cape has continued to command a higher export share and the export share increased to 73.17%, while Limpopo and Gauteng export shares have dropped to 11.82% and 14.77% respectively.

During 2017, Western Cape has commanded the greatest share of Western Cape export by recording 77.15%, Gauteng export value has slightly dropped to 13.97% and Limpopo export share has marginally dropped to 8.45% share. As of 2018, Western Cape was still in the lead in South Africa's sweet potato export share and it has commanded 73.32%, Gauteng has commanded 25.65% share and other provinces have commanded trivial export shares. During 2019, Western Cape export share declined slightly to 68.81%, Limpopo export share eased higher to 13%, North West export share increased to 8.32% and Gauteng export share dropped notably to 9.42%. In 2020, North West commanded the greatest share of 56.62% of South Africa's sweet potato export and this can be ascribed to a 6% increment in export volume destined to neighbouring Botswana. In the same year, Western Cape sweet potato export share declined to 32.70%, Gauteng registered a 6.79% share and Free State recorded a 3.12% share of sweet potato export share.

Table 3: Share of provincial sweet potato exports to the total RSA sweet potato exports (%)

1	Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	Province										
	Western Cape	3.58	23.97	39.40	48.11	50.65	73.17	77.15	73.32	68.81	32.70

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Province										
Northern	5	133		18 14 1		SAM		5		ALL N
Саре	0	0	0.15	0	0	0	0	0	0	0.58
Free State	0	0	0	0.14	0.15	0.09	0.03	0.10	0.06	3.12
KwaZulu			12.2	98855	100	200	N.		2.45	1
Natal	0	0	2.27	0.13	0.04	0.02	0.35	0.54	0.23	0.03
North West	0	0	3.90	0	0.17	0.09	0.02	0.11	8.32	56.62
Gauteng	87.90	51.40	27.10	25.09	20.91	14.77	13.97	25.65	9.42	6.79
Mpumalanga	0.01	0	0	0.01	0.01	0.04	0.03	0.24	0.14	0.16
Limpopo	8.52	24.45	27.04	29.60	28.09	11.82	8.45	0.08	13.02	0.00
South Africa	100	100	100	100	100	100	100	100	100	100

Source: Calculated from Quantec Easydata

Table 4: Share of sweet potato	exports to the	total Western	Cape provincial	sweet potato
exports (%)				

Year District	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
City of Cape Town	12.07	12.49	19.71	47.37	34.03	21.29	14.42	29.70	56.00	22.29
West Coast	2.08	0	0.00	1.35	10.18	0	0	8.28	12.49	13.38
Cape Winelands	85.56	87.13	79.87	51.26	55.39	78.38	85.57	62.02	30.86	41.99
Eden	0.29	0.38	0.42	0.01	0.40	0.33	0	0	0	0.79
Western Cape	100	100	100	100	100	100	100	100	100	100

Source: Calculated from Quantec Easydata100

Table 4 above indicates that the Cape Winelands commanded the greatest share of sweet potato exports from Western Cape province during the 10 year period. In 2011, Cape Winelands municipality commanded 85.56% and City of Cape Town dropped to 12.07% share of sweet potato export from the Western Cape. In 2012, Cape Winelands municipality continued to lead by commanding 87.13% shares of sweet potatoes from the Western Cape province. During the same year, the City of Cape Town has slightly increased their export shares. Cape Winelands has increased its sweet potato export share from 85.56% to 87.13% in 2013. In the same year, City of Cape Town has also increased its export share from 12.49% to 19.71%. During 2014, there was a sharp increase in City of Cape Town export share, whereas Cape Winelands export share has notably declined from 79.87% to 51.26%. Cape Winelands and West Coast sweet potato export share has notably increased during 2015, while the City of Cape Town export share has dropped to 34.03%. In 2016, Cape Winelands has continued to command the greatest share of Western Cape sweet potato export share and the export share increased to 78.38%, whereas City of Cape Town export share eased lower from 34.03% to 21.29%. Cape Winelands was still leading in Western Cape export share by commanding 85.57% export share and City of Cape Town export share has dropped to 14.42%. As of 2018, Cape Winelands export share has dropped slightly to 62.02%, City of Cape Town export share grew to 29.70% whereas West Coast export share has registered 8.28% share. In 2019, the City of Cape Town commanded 56% of Western Cape sweet potato exports, while the Cape Winelands export share fell sharply to 30.86% and the West Coast export share rose marginally to 12.49%. In 2020, the City of Cape Town sweet potato export share dropped notably from 56% to 22.29%, whilst the Cape Winelands export share increased to 41.99% and the West Coast export share increased to 13.38%.

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
District										
Sedibeng	0	0	0	0	0	0	0	0	0	0.03
West Rand	0	0	0	25.30	11.69	3.83	0.11	0	0	0.02
Ekurhuleni	94.35	45.43	1.66	12.81	13.16	29.09	23.71	28.27	21.02	23.14
City of Johannesburg	5.58	53.87	97.36	28.29	55.24	46.40	60.09	55.78	66.44	59.13
City of Tshwane Gauteng	0.07	0.70 100	0.99	33.60 100	19.91 100	20.67 100	16.08 100	15.94 100	12.54 100	17.68 100

Table 5: Share of sweet potato exports to the total Gauteng provin	ncial sweet potato exports
(%)	

Source: Calculated from Quantec Easydata

Table 5 above, indicates that Ekurhuleni and City of Johannesburg commanded the greatest share of sweet potato exports from Gauteng Province. OR Tambo International Airport renders the exit point of sweet potato exports from Gauteng Province. In 2011, Ekurhuleni commanded a 94.35% share of Gauteng Sweet potato exports. During 2012, Ekurhuleni's export share notably dropped to 45.43%, while the City of Johannesburg export share sharply increased to 53.87% in the same year. In 2013, the City of Johannesburg substantially increased its export share from 53.87% to 97.38%, whereas Ekurhuleni district export share notably dropped from 45.43% to 1.66%. During 2014, West Rand recorded a notable export share of 25.30%, City of Johannesburg export share drastically dropped to 28.29% and the City of Tshwane export share sharply increased from 0.99% to 33.60%. City of Johannesburg commanded the greatest share of 55.24% in 2015, whereas West Rand export share dropped to 11.69% and the City of Tshwane export share has declined to 19.91%. During 2016, City of Johannesburg export share eased lower to 46.40%, Ekurhuleni export share grew to 29.09% share, whereas City of Tshwane export share slightly increased to 20.67%. City of Johannesburg export share grew from 46.40% to 60.09%, Ekurhuleni has commanded 23.71% whilst City of Tshwane export share dropped to 16.08%. As of 2018, City of Johannesburg has commanded a 55.78% share of Gauteng sweet potato export, followed by Ekurhuleni with a 28.27% share and City of Tshwane has registered a 15.94% share. During 2019, City of Johannesburg has commanded the greatest share of 66.44% share, Ekurhuleni has recorded 21.02% share and City of Tshwane export share declined to 12.54% share of Gauteng sweet potato exports. During 2019, the City of Johannesburg sweet potato export share declined from 66.44% to 59.13%, Ekurhuleni export share increased to 23.145% and the City of Tshwane export share grew from 12.54 to 17.68% share.

Table 6: Share of sweet potato exports to the total KwaZulu Natal Provincial sweet potato exports (%)

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
District										
Ugu	0	0	100	0	0	0	0	0	0	0
UMgungundlovu	0	100	0	0	0	0	0	0	0	0
Zululand	0	0	0	0	0	0	0	0	0.01	1.86
ILimbe	0	0	0	48.23	0	0	0	0	0	0
Ethekwini	100	0	0	51.77	100	100	100	100	99.99	98.14
KwaZulu Natal	100	0	100	100	100	100	100	100	100	100

Source: Calculated from Quantec Easydata

Table 6 above shows that in 2011, Ethekwini commanded a 100% share of sweet potato exports from KwaZulu-Natal province. During 2012, KwaZulu Natal has recorded a zero trade in sweet potato. In 2013, Ugu contributed for the first time to KwaZulu Natal provincial export and it has commanded a 100% export share. The greatest share by Ethekwini can be attributed to Durban harbour, which renders exports exit point. During 2014, ILembe has commanded a 100% share of KwaZulu Natal sweet potato export share. In 2015 and 2016, Ethekwini has recorded a 100% share of sweet potato export from KwaZulu Natal province. During 2017, Ethekwini has continued to lead in KwaZulu Natal sweet potato export by commanding a 100% share of exports. As of 2018, Ethekwini has registered a 100% share of KwaZulu Natal sweet potato export share. Ethekwini has a 100% share of the KwaZulu Natal sweet potato export market as of 2019. In 2020, Ethekwini sweet potato export share.

Table 7 below indicates that Greater Sekhukhune commanded the greatest share of sweet potato exports from Limpopo province. In 2011, Waterberg commanded more than 74.87% share of sweet potato exports from Limpopo province. During 2012, Greater Sekhukhune export value has significantly increased from 25.13% to 76.91%, while Waterberg export value has notably dropped from 74.87% to 23.09% share of sweet potato exports from Limpopo province. In 2014, Greater Sekhukhune commanded a 99.80% share of sweet potato exports from Limpopo. During 2015, Greater Sekhukhune has continued to command a high sweet potato export share from Limpopo province. At the same time, Mopani, Capricorn and Waterberg export values were trivial. Greater Sekhukhune has commanded 98.43% share of Limpopo export share while another district has recorded insignificant export shares. In 2017, Greater Sekhukhune has registered a 98.82% share of the imports whilst Vhembe and Capricorn has continued to register insignificant export shares. As of 2018. Capricorn was leading in Limpopo sweet potato export share by commanding 44.17%. Waterberg has registered 29.61% share and Vhembe district commanded 16.23% share. Waterberg sweet potato export share increased to 88.92% in 2019, with greater Sekhukhune accounting for 10.95% of Limpopo exports. As in 2020, Vhembe has commanded 93.29% of sweet potato export share whereas Waterberg sweet potato export share declined sharply from 88.92% to 6.71%

Table 1. Shale 0	Jaweer	pulatu e	shours i	iu iulai Lii	iihoho	provinc	lai Swe	ei pula	to expu	113 (70)
Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
District										
Mopani	0	0	0	0	0.16	0.19	0	0	0	0
Vhembe	0	0	0	0	0	0	0.01	16.23	0.01	93.29

Table 7: Share of sweet potato exports to total Limpopo provincial sweet potato exports (%)

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
District										
Capricorn	0	0	0	0.09	0.79	0.96	0.54	44.17	0.12	0
Waterberg	74.87	23.09	0	0.12	0.34	0.41	0.64	29.61	88.92	6.71
Greater		1.22	233		10.5	200	2000			633
Sekhukhune	25.13	76.91	100	99.80	98.72	98.43	98.82	0	10.95	0
Limpopo	100	100	100	100	100	100	100	100	100	100

Source: Calculated from Quantec Easydata

2.4 Sweet potato imports by South Africa

South Africa is not a major sweet potato importer. In 2020, it represented 0% of the world imports for this product and its ranking in world imports was 77. South Africa has lost its competitiveness as in 2019; it was ranked 79 in world sweet potato imports. In 2020, Belgium, Malawi, Spain, Zimbabwe, Mozambique and Netherlands were the primary supplier of South Africa's sweet potato import. Belgium has commanded 64.1% and Malawi has supplied 25% of sweet potato imports by South Africa. In the same year, 4.3% of South Africa's sweet potato imports were sourced from Spain Sweet potato imports from Eswatini have increased by 199% in terms of value and by 107% in quantity between 2016 and 2020 period. Globally, the Netherlands, United Kingdom, Canada, Germany, France, Belgium and Thailand were major sweet potato importers during 2020

Figure 15 below illustrates the sweet potato imports by South Africa. In 2011, South Africa's sweet potato imports were just above 115 tons. In 2012, South Africa sweet potato import dropped by 70%, when compared to 2011 import. In 2013, Sweet potato imports have increased by 8.9%, when compared to the previous year imports and a high value was recorded for the volume imported. South Africa's imports increased despite a 20.5% increase in the domestic production output. There was a 7.6% increment in South Africa's sweet potato imports during 2014 and this can be ascribed 26.6% decline in the domestic output. It was also by far more expensive to import sweet potatoes during the same year. In 2015, South Africa has imported 12.7% less sweet potatoes in comparison to 2014 imports. During 2016, South Africa has imported 60% more sweet potatoes in comparison to 2015 sweet potato imports. The increment in sweet potato import can be ascribed to a 5.9% decline in the domestic sweet potato production output. From 2012 to 2016, it was relatively more expensive to import sweet potatoes compared to other years. In 2017, South Africa has imported just above 16 tons, which is a record low volume of imports in ten years. The sharp decline in sweet potato imports can be ascribed to a 16.6% increase in domestic production output. In the same year, it was by far more expensive to import sweet potatoes relative to other years. A record high volume of sweet potato imports was recorded in 2018 despite a 16.5% increase in the domestic production output. At the same time, it was relatively cheaper to import sweet potatoes relative to the 2017 import value. There was a sharp decline of 64% in South Africa's sweet potato imports and this can be ascribed to a 2.7% increment in domestic production output. It was relatively more expensive for South Africa to import sweet potato compared to the 2018 import value. As of 2020, there was a surge in sweet potato imports which can be ascribed to a 6.3% decline in the domestic production output relative to the 2019 volumes.



Source: Quantec Easydata

Figure 16 below illustrates the regions supplying South Africa with sweet potato imports. South Africa imported sweet potatoes mostly from Africa and Asia regions. As of 2011, South Africa imported sweet potato from China, Ghana, Zambia and Nigeria. During 2012, 89% of South Africa's sweet potato imports were sourced in China and 11% of imports were sourced from Ghana. In 2013, Africa (Ghana, Swaziland and Nigeria) and Asia (China and Taipei, Chinese) regions were suppliers of sweet potatoes imported by South Africa. South Africa imported sweet potatoes mainly from China and Ghana during 2014. Africa (Ghana) and Asia (China) regions have continued to be the primary suppliers of South Africa's sweet potato imports in 2015. There was a notable increase in unallocated sweet potato imports. During 2016, Asia and Africa region were still the main suppliers of South Africa's sweet potato imports. As of 2017, Asia and Africa regions remained the primary suppliers of South Africa's sweet potato imports. In 2018, South Africa's sweet potato imports were sourced mainly from Africa (Namibia and Eswatini) region, imports from Asia declined by 70% and there was a surge in unallocated imports. As of 2019, South Africa has imported sweet potato from Africa (Mozambique, Eswatini and Malawi) region, Europe (Belgium and Portugal) and imports from Asia were less significant. In 2020, South Africa sourced the sweet potato from Europe (Belgium, Spain and Netherlands) and African region (Malawi, Zimbabwe and Mozambigue). At the same time, there was a notable volume of unallocated imports.



Figure 16 shows South Africa's sweet potato imports from the regions.

Source: Quantec Easydata

Figure 17 shows the value of South Africa's sweet potato imports from the regions.



Source: Quantec Easydata

Figure 17 above indicates the value of South African sweet potato imports. In 2011, it was more expensive to import sweet potatoes from Asia. In 2012, it was still relatively more expensive to import sweet potatoes from Asia when compared to imports from the African region. In 2013, it was relatively

more expensive to import sweet potatoes from Asia, while the imports from Africa were fairly cheaper. In 2014, it was still relatively more expensive to import sweet potatoes from Asia in comparison to imports from African region. It was still by far more expensive to import sweet potatoes from Asia region during 2015 and imports from Africa were relatively cheaper. In 2016, South Africa has imported sweet potato from Asia region at a much higher value, while it was cheaper to import sweet potatoes from Asia region. During 2017, it was by far more expensive to import sweet potatoes from Asia region, whilst it was far cheaper to import from Africa region. As of 2018, it was more expensive to import sweet potatoes from Asia, whereas the imports from Africa region were cheaper. During the same year, unallocated imports have registered higher value. Sweet potatoes from Europe were imported at a higher value in 2019, while imports from Asia and Africa were at a lower value. In 2020, it was still more expensive to import sweet potatoes from Asia and imports from Africa were imports at a lower value.



Source: Quantec Easydata

Figure 18 above illustrates the entry point of South Africa's sweet potato imports during a ten year period. From 2011 to 2012, South Africa imported sweet potatoes mainly through KwaZulu Natal and Gauteng provinces. During 2013, KwaZulu Natal and Gauteng were still the primary entry points for South Africa's sweet potato imports. In the same year, Western Cape import value was insignificant. In 2014, Sweet potatoes were imported through KwaZulu Natal, Gauteng and Limpopo provinces. During 2015, KwaZulu Natal, Gauteng and Limpopo import values have drastically dropped, whereas Mpumalanga import value has increased. In 2016, KwaZulu Natal and Gauteng provinces were still the main entry points for South Africa's sweet potatoes imports and the import values have significantly increased, when compared to 2015 import values. During 2017, KwaZulu Natal was still the primary entry point for South African sweet potato imports, followed by Gauteng and Mpumalanga. As of 2018, Western Cape was the primary entry for South Africa's sweet potato imports and it can be ascribed to high imports from neighboring Namibia. At the same time, there

was a notable decrement in import values recorded for KwaZulu Natal, Gauteng and Mpumalanga. While the Western Cape remained the primary entry point for South African sweet potato imports in 2019, the value of imports fell by 37%. At the same time, sweet potato import value recorded for North West, Mpumalanga, Gauteng and Limpopo increased significantly compared to 2018. As of 2020, Western Cape was by far the entry point for South Africa's sweet potato imports, followed by Gauteng and Free State. At the same time, Eastern Cape recorded a notable import value whereas North West, Mpumalanga and Limpopo import values have notably declined relative to 2019 import values.



Source: Quantec Easydata

Figure 19 above shows the entry point of Gauteng sweet potato imports during the ten years. Gauteng has imported sweet potatoes mainly through City of Johannesburg and City of Tshwane. Ekurhuleni has contributed to a lesser extent. In 2012, there was a sharp decline in sweet potato import values for the City of Johannesburg and Ekurhuleni. During 2013, Ekurhuleni, City of Johannesburg and City of Tshwane import values has notably increased, in comparison to 2012 values. City of Tshwane import value has significantly increased during 2014 and 2015. City of Johannesburg import value has drastically increased in 2016, while City of Tshwane import value has dropped by 42%. During 2017, the City of Tshwane remained the primary entry point of Gauteng sweet potato imports and City of Johannesburg has registered trivial import value. As of 2018, City of Johannesburg was the main entry point for Gauteng provincial sweet potato imports and City of Tshwane import value surged by 107%, Import values recorded for the City of Tshwane and Ekurhuleni were incomparably higher relative to 2018 imports. As of 2020, City

of Tshwane and City of Johannesburg sweet potato import values surged whereas Ekurhuleni import value slightly declined compared to the 2019 export value.

2.5 Processing

Sweet potato leaves and shoots are also edible, but the starchy tuberous roots are far the most important product. In some tropical areas, sweet potatoes are a staple food crop. The roots are frequently boiled, fried or baked. They can also be processed to make starch and partial flour substitute. Industrial uses include the production of starch and industrial alcohol. Baked sweet potatoes are sometimes offered in a restaurant as an alternative for potatoes. Sweet potatoes can be sliced, fried and eaten just like potato chips. Raw sweet potato can be eaten as well, mostly in chip form. Sweet potato butter can be cooked into a gourmet spread. Taiwanese companies are making alcohol fuel from sweet potatoes is combined with lime juice to make a dye for cloth and purple sweet potatoes make dye for food colouring. Figure 19 presents the sweet potato value chain tree explaining its uses while Figure 20 illustrates the market value chain for sweet potatoes.

Figure 20: Sweet potato value chain tree explaining its uses



Figure 21: Market value Chain for sweet potato



The sweet potato value chain can be broken down into the following levels: the producers of sweet potato (farmers); pack house owners (cleans, grade and quality control); cold storage and transport facilities (store and transport sweet potato on behalf of farmers); traders in sweet potato (market and sell sweet potato); processors (add value to sweet potato and process sweet potato to other usable forms); and end users (consumers)

3. MARKET INTELLIGENCE

3.1 Tariffs

Tariffs applied by the various markets to sweet potatoes originating from South African during 2019 and 2020 are presented in Table 8.

Country	Product Description (H0714200)	Trade regime description	Applied tariff	Estimated total ad valorem equivalent tariff	Applied tariff	Estimated total ad valorem equivalent tariff		
				2019		2020		
Angola	Sweet potato fresh or chilled	MFN duties (Applied)	50.00%	50.00%	50.00%	50.00%		
Botswana	Sweet potato fresh or chilled	Intra SACU rate	0.00%	0.00%	0.00%	0.00%		
Canada	Sweet potato fresh or chilled	MFN duties (Applied)	0.00%	0.00%	5.00%	5.00%		
Bahrain	Sweet potato fresh or chilled	MFN duties (Applied)	5.00%	5.00%	5.00%	5.00%		
China	Sweet potato, fresh for human consumption	MFN duties (Applied)	0.00%	0.00%	0.00%	0.00%		
Belgium	Sweet potato, fresh for human consumption	Preferential tariff for South Africa	0.00%	0.00%	0.00%	0.00%		
Egypt	Sweet potato fresh or chilled	MFN duties (Applied)	5.00%	5.00%	5.00%	5.00%		
Eswatini	Sweet potato, fresh for human consumption	Preferential tariff for South Africa	0.00%	0.00%	0.00%	0.00%		
India	Sweet potato, fresh or dried	MFN duties (Applied)	5.00%	5.00%	5.00%	5.00%		
Indonesia	Sweet potato fresh or chilled	MFN duties (Applied)	5.00%	5.00%	5.00%	5.00%		
United Arab Emirates	Sweet potato frozen or dried	MFN duties (Applied)	5.00%	5.00%	5.00%	5.00%		
Malawi	Sweet potato fresh or chilled	Preferential tariff for South Africa	0.00%	0.00%	0.00%	0.00%		
Qatar	Sweet potato fresh or chilled	MFN duties (Applied)	5.00%	5.00%	5.00%	5.00%		

Table 8: Tariffs applied by various exports markets to sweet potato from South Africa

6-012 - 22 - 11		Preferential tariff for	5 5 12	231503		
Mozambique	Sweet potato fresh or chilled	South Africa	0.00%	0.00%	0.00%	0.00%
Namibia	Sweet potato fresh or chilled	Intra SACU rate	0.00%	0.00%	0.00%	0.00%
2.22.25.07.0	Sweet potato, fresh, whole for	Preferential tariff for	12.24	880		
Netherlands	human consumption	South Africa	0.00%	0.00%	0.00%	0.00%
Japan	Sweet potato, fresh or dried	MFN duties (Applied)	5.00%	5.00%	5.00%	5.00%
The Martin Contract	Sweet potato, fresh for human	Preferential tariff for	2 30 10	10000		
Spain	consumption	South Africa	0.00%	0.00%	0.00%	0.00%
Portugal	Sweet potato fresh or chilled	MFN duties (Applied)	0.00%	0.00%	5.00%	5.00%
Saudi Arabia	Sweet potato, fresh or dried	MFN duties (Applied)	5.00%	5.00%	5.00%	5.00%
	Sweet potato, fresh for human	Preferential tariff for		Constant and		
United Kingdom	consumption	South Africa	0.00%	0.00%	0.00%	0.00%
United States of		Preferential tariff for			Real Providence	Property services of
America	Sweet potato fresh or frozen	AGOA	0.00%	0.00%	0.00%	0.00%
		Preferential tariff for	1218			
Zambia	Sweet potato fresh or chilled	South Africa	0.00%	0.00%	0.00%	0.00%
		Preferential tariff for	2		12 13 12	
Zimbabwe	Sweet potato frozen or dried	South Africa	0.00%	0.00%	0.00%	0.00%

Source: Market Access Map

During 2020, South Africa sweet potato export markets were still destined to the Netherlands, United Kingdom, Namibia, Botswana, Belgium and the United Arab Emirates. Netherlands, Belgium and United Kingdom apply a 0% preferential tariff to sweet potatoes originating from South Africa. Namibia and Botswana apply a 0% Intra-SACU rate to sweet potato exports from South Africa. In 2020, Angola is still highly protected by a 50% tariff despite the SADC-FTA agreement. China is ranked number one in the world in sweet potato production and it applies a 0% tariff. Spain and Qatar have increased their sweet potato imports from the world and these markets are protected by 0% and 5% tariffs. Egypt is ranked number six in the world sweet potato exports and its domestic market is still protected by a 5% tariff. South Africa also exported sweet potatoes to other African markets in Eswatini and Lesotho. These markets apply a 0% Intra-SACU rate to South Africa's sweet potato exports.

3.2 Non-tariff barriers

3.2.1 The European Union

Non-tariff barriers can be divided into those that are mandatory and laid out in the EU Commission's legislature, and those that are as a result of consumers, retailers, importers and other distributions' preferences.

Product legislation: quality and marketing

There are a number of pieces of EU legislation that govern the quality of produce that may be imported, marketed and sold within the EU.

General Food Law covers matters in procedures of food safety and hygiene (micro-biological and chemical), including provisions on the traceability of food (for example, Hazard Analysis and Critical Control Points, of HACCP).

EU Marketing Standards, which govern the quality and labelling of vegetables, are laid out in the CAP framework under regulation EC 2200/96. These regulations include diameter, weight and class specifications, and any produce that does not comply with these standards are not allowed to be sold on the EU markets (detailed lists of products and their standards can be found in the annexes to the directive). The legislation (under EU 1148/2001) also dictates that a Certificate of Conformity must be obtained by anyone wishing to export and sell vegetables in the EU if that particular vegetable falls under the jurisdiction of the EU marketing standards, vegetables to be used in further processing needs a Certificate of Industrial Use, whilst another legislative directive covers the Maximum Residue Limits (MRL) of various pesticides allowed.

3.2.1 (b) Product legislation: phytosanitary regulations

The international standard for phytosanitory measures was set up by the International Plant Protection Committee (IPPC) to protect against the spreading of diseases or insects through the importation of certain agricultural goods. The EU has its own particular rules formalized under EC 2002/89, which attempts to prevent contact of EU crops with harmful organisms from elsewhere in the world.

The crux of the directive is that it authorizes the Plant Protection Services to inspect a large number of vegetable products upon arrival in the EU. This inspection consists of a physical examination of a consignment deemed to have a level of phytosanitory risk, identification of any harmful organisms and certification of the validity of any phytosanitory certificate covering the consignment. If the consignment does not comply with the requirements, it may not enter the EU, although certain organisms can be fumigated at the expense of the exporter.

3.2.1(c) Product legislation: packaging

The EU commission lays down rules for materials that come into contact with food and which may endanger people's health or bring about an unacceptable change in the composition of the foodstuffs.

The framework legislation for this EC 1935/2004. Recycling packaging materials are also emphasized under 94/62/EC, whereby member states are required to recycle between 50% and 65% of packaging waste. If exporters do not ship produce in reusable packaging, they may be liable for the costs incurred by the importing companies. Wood packaging is subject to phytosanitary controls (see Directive EC 2002/89) and may need to undergo heat treatment, fumigation, etc.

3.2.1. (d) Non-legal market requirements: social and environmental accountability

To access a market, importers must not only comply with the legal requirements set out above but also with market requirements and demands. For the most part, these revolve around quality and the perceptions of European consumers about the environmental, social, health and safety aspects of both the products and the production techniques. Whilst supplying vegetables that complies with these issues may not be mandatory in the legal sense, they are becoming increasingly important in Europe and cannot be ignored by existing or potential exporters.

(i) Social responsibility is becoming important in the industry, not only amongst consumers but also for retail outlets and wholesalers. The Social Accountability 8000 (SA8000) certification is a management system based on International Labour Organization (ILO) conventions, and deals with issues such as child labour, health and safety, and freedom of association, and requires an on-site audit to be performed annually. The certificate is seen as necessary for accessing any European market successfully. The major retailers in the EU also play an important role in tackling environmental issues, which means that exporters have to take these into account when negotiating exporting arrangements.

(ii) Environmental issues are becoming increasingly important to European consumers. Consumer movements are lobbying against purchasing non-environmental friendly or non-sustainable produce. To this end, both governments and private partners have created standards (such as ISO 14001 and EUREPGAP) and labels to ensure produce adhere to particular specifications. Labels are an absolute must for exporters attempting to enter the rapidly expanding organic produce market. The EU Commission has recently adopted and EU label for identifying food produced according to EU organic standards in the directive EEC 209/91

3.2.1(e) Consumer health and safety requirements

Increasing consumer conscience about health and safety issues has prompted a number of safety initiatives in Europe, such as EUREPGAP on good agricultural practices (GAP) by the main European retailers, the international management system of HACCP, which is independently certified and required by legislation for European producers as well as food imported into Europe (EC 852/2004), and the ISO 9000 management standards system (for procedures and working methods), which is certified by the International Standards Organization (ISO).

3.2.2 The United States

The USDA has quality standards for vegetables that provide a basis for domestic and international trade and promote efficiency in marketing and procurement. At the same time the USDA issues quality certificates based on these standards and a comprehensive grading system. Graders are

located around the country at terminal markets. These certification services, which facilitate the ordering and purchasing of products by large-volume buyers, assure these buyers that the product they purchase will meet the terms of the contract in terms of quality, processing, size, packaging and delivery.

3.2.3 Asian Market Access

Japan's agricultural sector is heavily protected, with calculations from the Organization for Economic Co-operation and Development (OECD) estimating that almost 60% of the value of Japan's farm production comes from trade barriers or domestic subsidies. Japan uses tariff rate quotas (TRQ) to protect its most sensitive products, and reserves the right for trading many of these products (within the quota) for one or two state trading enterprises. However, these extremely protective measures apply only to some products; others can compete more effectively with outside competition, often on the grounds of higher quality.

Perhaps the biggest barrier to trade with Japan in vegetable markets is its strict phytosanitary requirements, which have often been challenged in the WTO as having little or no scientific justification. Other measures that are being challenged include Japan's use of fumigation on agricultural products when cosmopolitan pests (already found in Japan) are detected. Japan is also increasing its labelling requirements.

4. GENERAL DISTRIBUTION CHANNELS

There are roughly three distinct sales channels for exporting vegetables. One can sell directly to an importer with or without the assistance of an agent (usually larger, more established commercial farms). One can supply a vegetable combine, which will then contract out importers/marketers and try to take advantage of economies of scale and increased bargaining power. At the same time, vegetable combines might also supply large retail chains. One can also be a member of a private or co-operate export organization (including marketing boards) which will find agents or importers and market the produce collectively. Similar to a vegetable combine, an export organization can either supply wholesale markets or retail chains depending on particular circumstances. Export organizations and marketing boards will wash, sort and package the produce.

5. LOGISTICAL ISSUES

5.1 Mode of transport

The transportation of vegetables falls within two categories – **ocean cargo** and **air cargo** – with ocean cargo taking much longer to reach the desired location but costing considerably less. Of course, the choice of transportation method depends, for the most part, on the fragility of the produce and how long it can remain relatively fresh. With the advent of technology and container improvements, the feasibility, cost and attractiveness of sea transportation have improved considerably. As more developing countries begin to export and supply major developed countries markets, so the number and regularity of maritime routes, and the container vessels travelling these routes, increase.

Presently South American countries like Peru benefit from the asparagus trade, which has led to some level of economies of scale with other vegetable products, and this has enabled cheaper transport prices for their other vegetable varieties. Such economies of scale could benefit SADC countries if more producers became exporters and took advantage of the various ports which have special capabilities in handling vegetable produce (for example, the proposed terminal in Maputo). For some products, to reach the destination market with an acceptable degree of freshness, air transport is the only option (asparagus, for example, is flown from Peru to the sufficient to cover the transport costs, and collective agreements between farmers of different commodities with different harvest periods can become particularly important.

5.2 Cold chain management is crucial when handling perishable products, from the initial packing houses to the refrigerated container trucks that transport the produce to the shipping terminals, through to the storage facilities at these terminals (and their pre-cooling capability), onto the actual shipping vessels and their containers, and finally on to the importers and distributors that must clear the produce and transport it to the markets/retail outlets, etc. For every 10°C increase above the recommended temperature, the rate of respiration and ripening of produce can increase twice or even thrice. Related to this are the increasingly important traceability standards, which require an efficiently controlled supply chain and internationally accepted business standards.

5.3 Packaging also plays a vital role in ensuring safe and efficient transport of a product and conforming to handling requirements, uniformity, recyclable materials specifications, phytosanitary requirements, proper storage needs and even attractiveness (for marketing purposes).

6. COMPETITIVENESS OF SOUTH AFRICA SWEET POTATO EXPORTS

Figure 22 below illustrates that South Africa's sweet potato export to the United Kingdom, United Arab Emirates, Namibia and Lesotho are growing faster than the world sweet potato imports to these countries. South Africa's performance in these countries is regarded as a gain in a dynamic market. South Africa's sweet potato exports to the Netherlands, Botswana and Spain are growing slower than the world imports into these countries, and this is regarded as a loss in the dynamic market. South Africa's sweet potato exports to Zambia are declining while world imports are growing into this country. South Africa sweet potato exports are not declining as fast as the world imports into Saint Helena.

Figure 23 below shows that during 2020, the Netherlands and the United Kingdom were still the primary markets for sweet potato exports from South Africa. Prospective markets for sweet potato exports are mainly Bahrain, Saudi Arabia, Belgium and the United Arab Emirates. However, if SA is to diversify its sweet potato exports, the most lucrative market exists in Spain and Qatar, which have increased their sweet potato imports from the world between 2016 and 2020. Spain has experienced 62% and Qatar has experienced a 30% of annual growth rate. Saint Helena, Seychelles and Zambia have recorded negative growth between the 2016 and 2020 periods.





ca in 2020 Source: ITC Trade Map

Figure 23: Prospects for market diversification for sweet potatoes exported from South Africa in 2020 Prospects for market diversification for a product exported by South Africa in 2020 Product : 071420 Sweet potatoes, fresh, chilled, frozen or dried, whether or not sliced or in the form of pellets 80 Spain Scale : 4 % of world imports Annual growth of partner countries' imports from the world between 2016-2020, % 60 40 -Belgium Qatar Mozambique -Netherlands Botswana 20-Saudi Arabia United Kingdom United Arab Emirates South Africa-Namibia Zambia 0 -Malawi -Seychelles ÷. Saint Helena -20 -40 -10 Ó 10 20 30 40 50 Share of partner countries in South Africa's exports, 2020, % South Africa export growth South Africa export growth The bubble size is proportional N.A. 🔆 ITC

Reference bubble

Some bubbles may not be displayed

due to lack of growth rate indicators

Source: ITC Trade Map

to partner < Partner import</p>

growth from the world

to partner > Partner import

growth from the world

to the share in world imports

of partner countries for

the selected product

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Quantec Research www.easydata.co.za

Market Access Map www.macmap.org

International Trade Centre (ITC) www.trademap.org

Economic Research Service/USDA

www.wikipedia.co.za

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